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## NOTICE OF ALLOWANCE AND FEE(S) DUE

33308 7590 12/01/2009

LOWE HAUPTMAN HAM & BERNER, LLP  
1700 DIAGONAL ROAD, SUITE 300  
ALEXANDRIA, VA 22314

EXAMINER

THANGAVELU, KANDASAMY

ART UNIT

PAPER NUMBER

2123

DATE MAILED: 12/01/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/584,224

06/23/2006

David Faure

4590-552

9733

TITLE OF INVENTION: METHOD FOR IMPROVING A WORKING MODEL FOR THE MANAGEMENT OF THE MAN-MACHINE INTERACTION

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	03/01/2010

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.**

**THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.**

### HOW TO REPLY TO THIS NOTICE:

#### I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

# **PART B - FEE(S) TRANSMITTAL**

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE  
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Alexandria, Virginia 22313-1450  
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

33308 7590 12/01/2009

**LOWE HAUPTMAN HAM & BERNER, LLP**  
1700 DIAGONAL ROAD, SUITE 300  
ALEXANDRIA, VA 22314

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

## **Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/584,224 06/23/2006 David Faure 4590-552 9733

TITLE OF INVENTION: METHOD FOR IMPROVING A WORKING MODEL FOR THE MANAGEMENT OF THE MAN-MACHINE INTERACTION

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
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nonprovisional NO \$1510 \$300 \$0 \$1810 03/01/2010

EXAMINER	ART UNIT	CLASS-SUBCLASS
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THANGAVELU, KANDASAMY 2123 703-023000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 \_\_\_\_\_
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 \_\_\_\_\_
- 3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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ALEXANDRIA, VA 22314

EXAMINER

THANGAVELU, KANDASAMY

ART UNIT

PAPER NUMBER

2123

DATE MAILED: 12/01/2009

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 587 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 587 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

**Notice of Allowability**

Application No.

10/584,224

Applicant(s)

FAURE ET AL.

Examiner

Art Unit

KANDASAMY THANGAVELU

2123

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to August 31, 2009.
2. ☒ The allowed claim(s) is/are 10 and 13-18.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 06/23/06
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other Clean Copy of Allowed Claims.

## **DETAILED ACTION**

### ***Introduction***

1. This communication is in response to the Applicants' communication dated August 31, 2009. Claims 10-17 were amended. Claims 10-18 of the application are pending.

### ***Examiner's Amendment***

2. An Examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to the applicants, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Elliott Malamud on November 17, 2009.

3. The application has been amended as follows:

In the claims:

Replace claim 10 with:

10. A method of enhancing a user task model by an evolutionary learning process for management of man- machine interaction with a computer, comprising the steps of:

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identifying a current state of a user in his task on the basis of an existing user task model implemented on a computer;

identifying events causing a change of state of the user;

identifying a user interaction with the computer performed by the user to manage an event occurring during the change of state of the user;

before each interaction is performed by the user, adding a list of constraints and conditions necessary for triggering the interaction, to the user task model; and

after each interaction performed by the user, adding outputs that this interaction should provide according to results of the interaction which should be presented to the user as feedback, to the user task model.

Cancel claims 11 and 12.

Replace claims 14-18 with:

14. The method according to claim 10, further comprising modifying the user task model in real time, based on the additions made and generating an enhanced user task model.

15. The method according to claim 14, further comprising modifying the interaction with the user in real time, using the enhanced user task model.

16. The method according to claim 14, further comprising performing learning based upon a user interaction, according to the enhanced user task model using a learning module.

17. The method according to claim 14, further comprising deriving man-machine interface service specifications from the enhanced user task model.

18. The method according to claim 10, wherein an initial task model is provided by an expert.

**A clean copy of the allowed claims is attached.**

***Reasons for Allowance***

4. Claims 10 and 13-18 of the application are allowed over prior art of record.

5. The following is an Examiner's statement of reasons for the indication of allowable subject matter:

The closest prior art of record shows:

(1) developing an adaptive user interface using a user model and an adaptation strategy; a knowledge base model of a user interface design environment (IDE); using knowledge of an application to support run-time execution of the application's interface; using the knowledge model as a basic construct of a user model; extending the adaptive interface to the UIDE architecture utilizing the user model; user defining his model and the adaptation strategy; the user model species the device and interaction preferences and screen layout preferences; adaptive interface information about the user based on how the user works with the application; the model

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can change over time as the user works with the application and learns various aspects of the application; UIDE uses knowledge of the application at design time to help automate the interface design process and at run time to control the execution of the application; the knowledge model in UIDE deals with interaction objects and interaction techniques through which the user interacts with the application; data collected at run time to determine when the adaptive behavior should be triggered; the UIDE evaluates the adaptation automatically using collected user performance data; the user model is represented for each user; adaptive behaviors of the interface are options that the designer can choose; parameters, pre-conditions, actions and post conditions are captured in the knowledge base (**Sukaviriya et al.**, “Supporting adaptive interfaces in a knowledge based user interface environment”, ACM, 1993);

(2) using user context modeling techniques to identify and provide appropriate computer actions based on a current context and to continuously improve providing such computer actions; the computer actions include presentation of appropriate content and functionality; feedback paths used to assist in automated machine learning in detecting patterns and generating inferred rules; improvements from generated rules can be implemented with or without direct user control; the technique is used for customizing a model of the user's current context, customizing received themes, predicting appropriate content for presentation or retrieval, customizing software interfaces and mentoring user to promote desired change; higher level abstraction used to characterize output behavior for different types of information; changing conditions detected using previously created models of the user's context; model of the user context is then updated; the current state of the user is identified and output to the user provided through display;



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enhancing software and device functionality through automated learning (**Robarts et al.**, U.S. Patent Application 2002/0083025); and

(3) dynamically adapting a presentation generated with a scalable application to a display screen of any of a plurality of heterogeneous device platforms; the device platform initiates generation of a hierarchical configuration representing a plurality of graphical user interface components; development of model based techniques involving user interface modeling; the user interface model includes a presentation model, a platform model and a task model; the platform model describes the operational functionality forming the user interface for each device supported; the presentation model describes the hierarchy, stylistic choices, selection and placement regarding visual appearances with supported devices; the task model identifies the tasks that the user of the supported devices may perform; mapping between various models is developed to produce a user interface for a particular device; model based approaches generate code based on different models that the developer builds; scalable graphical user interfaces (SGUI) allows scalable applications to operate on any of a plurality of heterogeneous device platforms; customizing modules in SGUI includes a task manager and a transformation manager; the interface is dynamically customized based on the capabilities of the target device platforms and the properties specified by the application developers (**Chen et al.**, U.S. Patent Application 2004/0163046).

Additional state of the art reviewed and considered by the Examiner is found in U.S. Patent Application 2004/00189691; U.S. Patent Application 2003/0144055; U.S. Patent 7,603,657; and U.S. Patent Application 2004/0153992.

None of these references taken either alone or in combination with the prior art of record discloses a method of enhancing a user task model by an evolutionary learning process for management of man- machine interaction with a computer, specifically including:

(Claim 10) “before each interaction is performed by the user, adding a list of constraints and conditions necessary for triggering the interaction, to the user task model; and

after each interaction performed by the user, adding outputs that this interaction should provide according to results of the interaction which should be presented to the user as feedback, to the user task model” in combination with the remaining elements and features of the claimed invention.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance.”

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kandasamy Thangavelu whose telephone number is 571-272-3717. The examiner can normally be reached on Monday through Friday from 8:00 AM to 5:30 PM.

Art Unit: 2123

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez, can be reached on 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to TC 2100 Group receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

K. Thangavelu  
Art Unit 2123  
November 18, 2009

/Paul L Rodriguez/  
Supervisory Patent Examiner, Art Unit 2123